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10/790,978

03/02/2004

Charles I. Zovko

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09/19/2006

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EXAMINER

QUARTERMAN, KEVIN J

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,978

Applicant(s)

ZOVKO ET AL.

Examiner

Kevin Quarterman

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-15 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's remarks received 30 June 2006 have been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8-9 and 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Burrows (US 2004/0145089).
4. Regarding independent claim 8, Figure 1 of Burrows shows an electroluminescent panel comprising a release layer (102); a first insulating layer (104) on the release layer; a plurality of lamp layers (106, 108, 110, 112) on the first insulating layer; and a second insulating layer (114) overlying the lamp layers; wherein at least one of the lamp layers includes a UV-cured resin and the remaining layer layers include a heat-cured resin (pg. 12, ¶ [0144]).
5. Regarding claim 9, Burrows discloses the first insulating layer and the second insulating layer including UV-curable resin (pg. 3, ¶ [0039]).
6. Regarding claim 11, Burrows discloses one of the lamp layers being a cascading layer made from a UV-curable ink (pg. 5, ¶s [0059]-[0061]).

7. Regarding claim 12, Burrows discloses the first insulating layer including a cascading dye (pg. 8, ¶ [0092]).
8. Regarding claim 13, Burrows discloses the first insulating layer including a cascading dye (pg. 8, ¶ [0092]).
9. Regarding claim 14, the Examiner notes that the mere duplication of electrodes has no patentable significance unless a new and unexpected result is produced (MPEP § 2144.04 VI (B)).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1-4, 6-7, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows (US 2004/0145089) in view of Eckersley (US 5,770,920).

13. Regarding independent claim 1, Figure 1 of Burrows shows an electroluminescent panel comprising a release layer (102); a first insulating layer (104) on the release layer; a plurality of lamp layers (106, 108, 110, 112) on the first insulating layer; and a second insulating layer (114) overlying the lamp layers.

14. Figure 1 of Burrows teaches the limitations of independent claim 1 discussed above but fails to exemplify the first insulating layer and the second insulating layer including low molecular weight PVDF/HFP resin.

15. Eckersley, also in regards to claims 10 and 15, teaches that it is known in the art to provide electroluminescent panels with insulating layers including low molecular weight PVDF/HFP resin for preventing the rear electrode from shorting to an external material (col. 4, ln. 45-51).

16. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the electroluminescent panel of Burrows with insulating layers including low molecular weight PVDF/HFP resin, as taught by Eckersley, for improving the lifetime of the device, since the selection of a known material based on its suitability for its intended use is within the skill of a worker in the art (MPEP § 2144.07).

17. Regarding claim 2, Burrows discloses at least one of the lamp layers including a UV-cured resin and the remaining lamp layers include a heat-cured resin (pg. 12, ¶ [0144]).

18. Regarding claim 3, Burrows discloses one of the lamp layers being a cascading-color layer made from a UV-curable ink (pg. 5, ¶s [0059]-[0061]).
19. Regarding claim 4, Burrows discloses the first insulating layer including a cascading dye (pg. 8, ¶ [0092]).
20. Regarding claim 6, Burrows discloses the first insulating layer including a cascading dye (pg. 8, ¶ [0092]).
21. Regarding claim 7, the Examiner notes that the mere duplication of electrodes has no patentable significance unless a new and unexpected result is produced (MPEP § 2144.04 VI (B)).
22. Regarding independent claim 15, Burrows also discloses a cellular telephone including at least one electroluminescent panel, the electroluminescent panel not including a substrate but is formed on a release layer that is removed and not included in the telephone (pg. 7, ¶ [0078]; pg. 11, ¶ [0120]).

Allowable Subject Matter

23. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
24. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither shows or suggests an electroluminescent panel comprising, in addition to other limitations of the claim, at least one bus bar including low molecular weight PVDF/HFP resin and a conductive filler.

Response to Arguments

25. Applicant's arguments received 30 June 2006 have been fully considered but they are not persuasive.

26. In response to applicant's argument that the disclosure of Burrows (§ [0144]) is irrelevant since it is related to printed circuits instead of EL lamps, the Examiner notes that this particular section of the disclosure was relied on to show that Burrows teaches UV-cured resin as well as heat-cured resin, as claimed in independent claim 8 of the instant application. The Examiner also notes that Burrows discloses a membranous polyurethane EL lamp combined with circuitry (§ [0145]-[0146]), which directly relates the EL lamps to the printed circuits. Thus, the Examiner holds that the disclosure of Burrows relied upon by the Examiner is relevant to applicant's claimed invention in the instant application.

27. In response to applicant's argument that the same disclosure of Burrows (§ [0144]) is not made with respect to lamp layers, the Examiner notes that this paragraph teaches printing layers of polyurethane ink by heat curing or ultra violet curing or a combination of both. Burrows discloses that not all of the EL layers have to be UV-curable inks, but also selected layers may be deployed using the UV-curable inks (§ [0038]). Burrows also discloses that heat curing is an alternative to UV-curing (§ [0012]) and that EL systems may comprises layers that are heat-cured (§ [0010]). Thus since Burrows teaches urethane layers being heat-cured or UV-cured, the Examiner holds that the disclosure of Burrows is made with respect to the lamp layers.

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28. In response to applicant's argument that the terpolymers or copolymers of Eckersley do not include low molecular weight PVDF/HFP resin, the Examiner notes that when the structure recited in a reference is substantially identical to that of the claims, claimed properties are presumed to be inherent, and if the composition is physically the same, it must have the same properties (MPEP § 2112.01). In Lines 49-51 of Column 4, Eckersley discloses that the insulator may be formed from the terpolymer of polyvinylidene fluoride-tetrafluoroethylene (PVDF-TFE) copolymer. Eckersley also discloses a terpolymer of vinylidene fluoride-hexafluoropropylene (HFP) in Lines 20-21. Thus, the Examiner holds that Eckersley teaches the low molecular weight PVDF/HFP resin claimed in the instant application.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

30. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Quarterman
Examiner
Art Unit 2879

kq 
5 September 2006


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